Patent
Serial No. 10/582,579
Corrected Appeal Brief in Reply to
Notice of Non-Compliant Appeal Brief mailed on August 19, 2009

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of	Atty. Docket: NL031467
ROBERT A. BRONDIJK	Confirmation No.: 1765
Serial No.: 10/582,579	Examiner: VAN NGUYEN CHOW
Filed: JUNE 12, 2006	Group Art Unit: 2627

Title: OPTICAL DISC FOR STORING BOTH DATA REQUIRED DEFECT
         MANAGEMENT AND REAL-TIME AV DATA

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P.O. Box 1450
Alexandria, VA 22313-1450

<u>**CORRECTED APPEAL BRIEF**</u>

Sir:

Appellants herewith respectfully present a corrected **Summary of Claimed Subject Matter** and a corrected **ARGUMENT** of the Brief on Appeal, responsive to the Notice of Non-Compliant Appeal Brief mailed on August 19, 2009, related to a Brief on Appeal that was submitted on July 15, 2009.

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SUMMARY OF CLAIMED SUBJECT MATTER

The present invention, for example as claimed in claim 1, relates to an optical disc for storing digital data (e.g., see, present application, FIG. 2, optical disk 1 and page 4, lines 8-9). The disc includes a first storage area for storing a first type of digital data (e.g., see, present application, FIG. 1, first data area 10 and page 4, lines 9-10) and a second storage area for storing a second type of digital data (e.g., see, present application, FIG. 1, second data area 20 and page 4, lines 10-11), each of the first and second areas comprising a user-data area (e.g., see, present application, FIG. 1, user area 11, 21, page 5, line 3 and lines 13-14, wherein the first and the second storage area are logically independent (e.g., see, present application, page 5, lines 25-26), and wherein said first storage area has reading/writing capabilities for high-speed data without defect management (e.g., see, present application, page 5, lines 3-4), and said second storage area has reading/writing capabilities for data requiring defect management support (e.g., see, present application, page 5, lines 9-10) and includes at least one defect

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management area associated with said user data area of the second

storage area for storing defect management data (e.g., see, present

application, defect management areas 22a, 22b and page 5, lines 12-

14).

The present invention, for example as claimed in claim 8,

relates to a method of reading digital data from or writing digital

data to an optical disc (e.g., see, present application, FIG. 2,

optical disk 1 and page 4, lines 8-9) including a first storage

area for storing a first type of digital data (e.g., see, present

application, FIG. 1, first data area 10 and page 4, lines 9-10) and

a second storage area (e.g., see, present application, FIG. 1,

second data area 20 and page 4, lines 10-11), which is logically

independent of the first storage area (e.g., see, present

application, page 5, lines 25-26), for storing a second type of

digital data requiring support for defect management (e.g., see,

present application, page 5, lines 9-10), each of the first and

second areas comprising a user-data area (e.g., see, present

application, FIG. 1, user area 11, 21, page 5, line 3 and lines 13-

14). The method includes acts of accessing the first storage area

when digital data of the first type is to be read from or written

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to the first storage area (e.g., see, present application, first

input 34, and page 6, lines 15-20), accessing the second storage

area when digital data of the second type is to be read from or

written to the second storage area (e.g., see, present application,

second input 35, and page 6, lines 20-23).

The present invention, for example as claimed in claim 9,

relates to an optical disc drive (e.g., see, present application,

FIG. 3) including an optical reader/writer (e.g., see, present

application, read/write means 31 and page 6, lines 5-6), a drive

controller, means for receiving digital data (e.g., see, present

application, DSP 32, drive controller 33, interface 37, first and

second inputs 34, 35, page 6, lines 7-8, and lines 9-23), and means

for receiving an optical disc (e.g., see, present application,

means 36 and page 6, line 4). The drive controller (e.g., see,

present application, FIG. 3, DSP 32, drive controller 33, interface

37, and first and second inputs 34, 35) includes first access means

for accessing a first storage area of an optical disc received in

the means for receiving the optical disc in response to receiving

instructions to read a first type of data from or write data of the

first type to the first storage area (e.g., see, present

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application, first input 34, and page 6, lines 15-20); and second access means for accessing a second storage area of the optical disc in response to receiving instructions to read a second type of data from or write data of the second type to the second storage area, the second type of data requiring support for defect management (e.g., see, present application, second input 35, and page 6, lines 20-23).

It should be explicitly noted that it is not the Appellant's intention that the currently claimed device and method be limited to operation within the illustrative device and method described above beyond what is required by the claim language. Further description of the illustrative device and method is provided above indicating portions of the claims which cover the illustrative device and method merely for compliance with requirements of this appeal without intending any further interpreted limitations be read into the claims as presented.

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ARGUMENT

Claims 1-11 are said to be anticipated by Kayanuma.

Appellant respectfully requests the Board to address the patentability of independent claims 1, 8 and 9, and further claims 2-7 and 10-11 as respectively depending from one of independent claims 1 and 9, based on the requirements of independent claims 1, 8 and 9. This position is provided for the specific and stated purpose of simplifying the current issues on appeal. However, Appellant herein specifically reserves the right to argue and address the patentability of claims 2-7 and 10-11 at a later date should the separately patentable subject matter of claims 2-7 and 10-11 later become an issue. Accordingly, this limitation of the subject matter presented for appeal herein, specifically limited to discussions of the patentability of independent claims 1, 8 and 9 is not intended as a waiver of Appellant's right to argue the patentability of the further claims and claim elements at that later time.

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Kayanuma describes acquiring a change-permitted range in which changes in the assignment of logical addresses is allowed, and when sectors having secondary defects due to write abnormalities are detected, replacement of sectors is carried out as long as changes in the assignment of logical addresses do not go beyond sectors in the change-permitted range by: omitting the secondary defect sectors by additionally registering the defective sectors in a slip replacement list, and shifting back the assignment of logical addresses as long as there are free sectors following the abnormal sectors. (See, Kayanuma, Abstract). In other words, as illustrated in Figures 10 and 11 of Kayanuma, and as cited in the Final Office Action, Kayanuma teaches mapping logical addresses 0-7 and 8-15 to physical memory 0-11 and 12-23, respectively. Each section of physical memory includes eight user area sectors at physical memory addresses 0-7 and 12-19 and four spare area sectors at physical memory addresses 8-11 and 20-23 (see, Kayanuma, Col. 9, lines 27-30). Thus, Kayanuma merely suggests that remapping of four bad or defective sectors in the user areas at physical memory addresses 0-7 and 12-19 may be made to the spare areas at memory addresses 8-11 and 20-23, respectively.

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It must be pointed out that no where within the four corners of Kayanuma is a distinction made that user data areas within physical address areas 0-7 and 12-19 are treated differently or that each are used for different data types. In fact, as clear from Kayanuma, each area supports defect management.

The Final Office Action in a response to arguments section of the Final Office Action contained on page 2 of the Final Office Action, relies on Kayanuma, FIG. 10 and Col. 9, lines 46-58 for teaching that one user data area supports defect management while another does not, however, it is respectfully submitted that reliance on this portion of Kayanuma, or any portion of Kayanuma for that matter, is misplaced.

FIG. 10 of Kayanuma merely sets out how physical addresses and logical addresses are re-mapped through use of a slip replacement list to account for physical addresses, such as physical addresses 3 and 5, which have defects and therefore cannot be assigned to logical addresses (see, Kayanuma, FIG. 10 and Col. 9, lines 27-45).

In Kayanuma, Col. 9, lines 46-58 cited in the Final Office Action states in complete form:

> In FIG. 10, in a case in which data from the host device is
> to be written to sectors corresponding to logical addresses

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"5" and "6", the logical address "10" at the end of the change-permitted range and logical addresses "5" and "6" for which data are to be written, are first acquired from the host device. The range from logical address "5" to "10" thus becomes the change-permitted range, and changes in the assignment of logical addresses are permitted. Since physical addresses "3" and "5" are registered in slip replacement list, the sector corresponding to logical address "5" shifts two sectors back to physical address "7", and the sector corresponding to logical address "6" becomes physical address "8".

As clear from a review of the section of Kayanuma cited in the Final Office Action, this section merely provides an example of how logical addresses 5 and 6 are mapped to physical addresses 7 and 8 in consideration of defect areas contained in physical addresses 3 and 5, as indicated in the slip replacement list.

The Final Office Action argues in the Response to Arguments section, contained on page 2 of the Final Office Action, that the user area contained at physical addresses 12-19 does not have a defect area. This position is respectfully refuted.

While Kayanuma provides an example of defect management only in the user area allocated to physical address 0-7, it is clear that this is provided as an example of defect management even though, no distinction is made between the user area contained at physical addresses 0-7 and the user area contained at physical

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addresses 12-19. Clearly, both areas support defect management in terms of the teachings of Kayanuma.

In fact, as made clear from Kayanuma, a portion of the user area contained at physical addresses 12-19, specifically physical addresses 12-14, are allocated to defect management (see, indication, "Change - Permitted Range" shown in FIG. 10).

As described in Kayanuma, (emphasis added) "[i]f a write abnormality is detected at physical address "8" as the result of writing to physical addresses "7" and "8", it is next verified whether or not an addition can be made to the slip replacement list. In this case, a spare area exists between the physical address "14" that corresponds to logical address "10," which was reported as the end of the change-permitted range, and physical address "8", which is the intended write destination of logical address "6" that is to be written, and free sectors are left. As a result, the physical address "8" in which the write abnormality occurred is newly registered in the slip replacement list as a slip replacement address." (See, Kayanuma, Col. 9, line 59 through Col. 10, line 2.)

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As clear from the above, the physical address 14, which is contained within physical addresses 12-19, which is alleged in the Final Office Action to not support defect management, is in fact utilized for defect management as a remapped physical address for the secondary defect area corresponding to physical address 8. Accordingly and clearly, in contrast with the assertions contained in the Final Office Action, physical addresses 12-19 have a storage area (e.g., physical address 14 in the example provided by Kayanuma), for storing defect management data.

In light of the above discussion, it is respectfully submitted that the optical disk of claim 1 is not anticipated or made obvious by the teachings of Kayanuma. For example, Kayanuma does not disclose or suggest, an optical disk that amongst other patentable elements, comprises (illustrative emphasis provided) "first storage area has reading/writing capabilities for high-speed data without defect management, and said second storage area has reading/writing capabilities for data requiring defect management support and comprises at least one defect management area associated with said user data area of the second storage area for storing defect

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management data" as recited in claim 1, and as similarly recited in each of claims 8 and 9.

Thus, contrary to the teachings of Kayanuma, in the presently recited claims of the present application, while the second storage area has capabilities for data requiring defect management support, the first storage area of the present optical disk, does not have such capabilities. In Kayanuma all areas, i.e., memory areas at physical addresses 0-7 and 12-19, include defect management.

It is further respectfully submitted that Kayanuma does not disclose or suggest, an optical disk that amongst other patentable elements, comprises (illustrative emphasis provided) "a first storage area for storing a first type of digital data and a second storage area for storing a second type of digital data" as further recited in claim 1, and as similarly recited in each of claims 8 and 9. As should be clear from the discussion above, each of the user areas of Kayanuma corresponding to physical addresses 0-7 and 12-19, are utilized to store a "same-type" of digital data. In Kayanuma, clearly the data areas do not support first and second types of digital data.

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Based on the foregoing, the Appellants respectfully submit that independent claims 1, 8 and 9 are patentable over Kayanuma and notice to this effect is earnestly solicited.

Claims 2-7 and 10-11 respectively depend from one of claims 1 and 9 and accordingly are allowable for at least this reason as well as for the separately patentable elements contained in each of said claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.
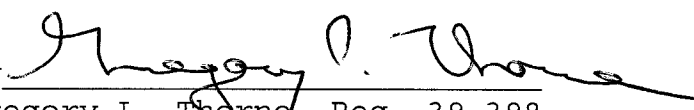
In addition, Appellant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Appellant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

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CONCLUSION

Claims 1-11 are patentable over Kayanuma.

Thus the Examiner's rejection of claims 1-11 should be reversed.

Respectfully submitted,

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